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APPLICANT : KANEGAFUCHI CHEM IND CO LTD;

INVENTOR : TAKAHASHI SATOMI;

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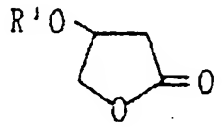
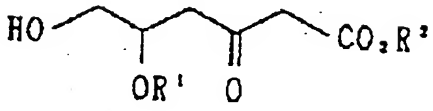
TITLE : PRODUCTION OF 5,6-DIHYDROXY-3-OXOHEXANOIC ACID ESTER DERIVATIVE



I

$$LiCH_2CO_2R^2$$

II



III

$$BrCH_2CO_2R^2$$

IV

ABSTRACT : PURPOSE: To obtain the title compound useful as an intermediate for HMG-CoA reductase inhibitor efficiently and economically by reacting 3-hydroxy-γ- butyrolactone derivative with lithium enolate of acetic ester.

CONSTITUTION: A compound shown by formula I (R^1 is H or silyl type protecting group) is allowed to react with a compound shown by formula II (R^2 is 1-10C alkyl, aralkyl or aryl), preferably lithium enolate prepared by reacting t-butyl acetate with lithium diisopropylamide at -100 to 20°C, preferably -80 to 0°C to give a compound shown by formula III. Or, the compound shown by formula I is reacted with an α-bromoacetic acid ester shown by formula IV in the presence of zinc at 15-70°C, preferably 20-65°C to give a compound shown by formula III.